Electronic Supplementary Information

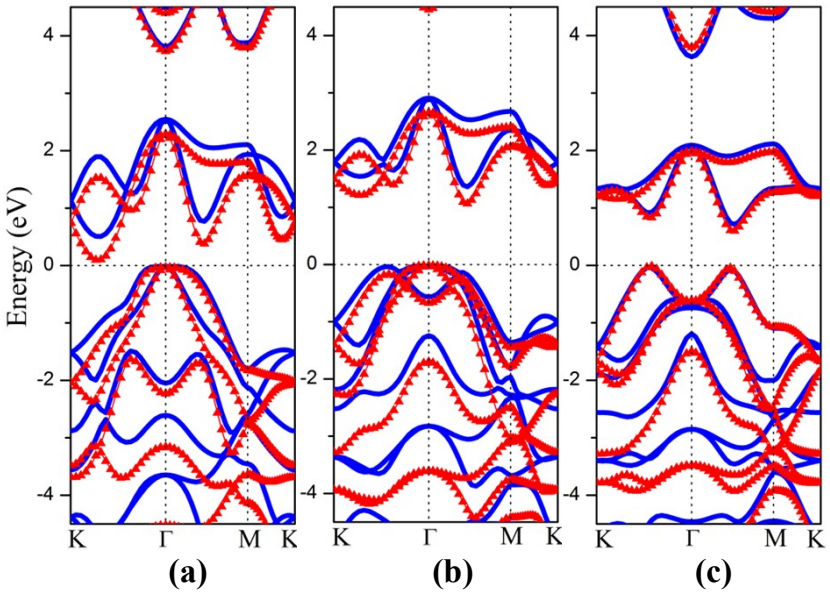

Figure S1 Computed band structure of monolayer $PtSe_2$ with isotropic strain of (a) ε = -8%, (b) ε = 0% and (c) ε = 8%. The bands in blue lines represent the computed band structures based on the semi-local DFT method, while the bands in red lines and symbols represent the computed band structures based on the DFT+U method (U = 4 eV).

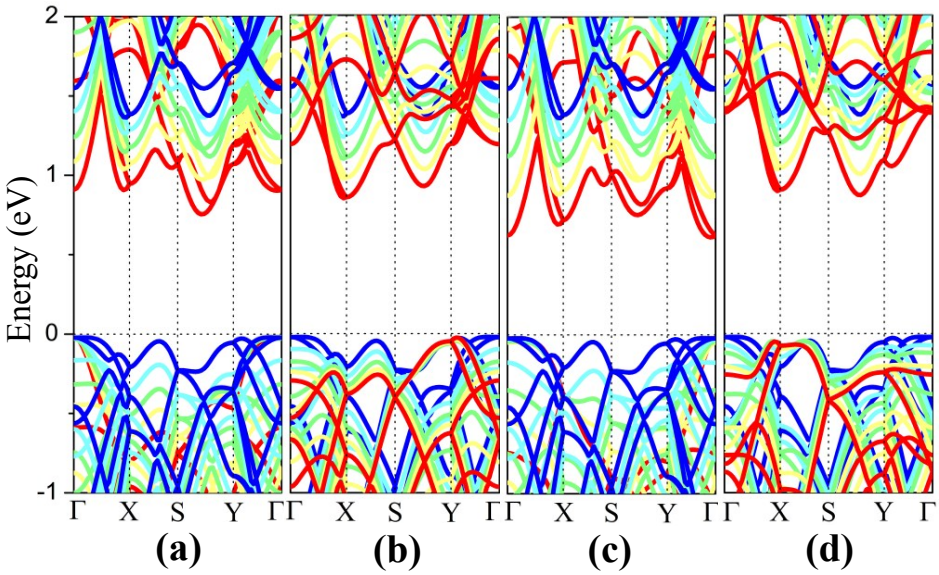

Figure S2 Computed band structure of monolayer $PtSe_2$ with strain of (e) ε_x = -8%~0%, (f) ε_x = 0%~8%, (g) ε_y = -8%~0% and (h) ε_y = 0%~8%. The bands plotted with different color represent the computed band structures corresponding to different strains: blue (ε = 0%), cyan (ε = ±2%), green (ε = ±4%), yellow (ε = ±6%) and red (ε = ±8%). The Fermi level is located at 0 eV.